UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,026	06/15/2001	Bernard Fay	PAO233	7838

30743 7590 05/13/2003

WHITHAM, CURTIS & CHRISTOFFERSON, P.C.
11491 SUNSET HILLS ROAD
SUITE 340
RESTON, VA 20190

EXAMINER
YOUNG, CHRISTOPHER G

ART UNIT	PAPER NUMBER
1756	10

DATE MAILED: 05/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

SK

Offic Action Summary

Application No.	Applicant(s)
09/881,026	FAY et al.
Examiner	**Group Art Unit**
Young	1756

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE -3- MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 4/30/03.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-12 ~~is~~/are pending in the application.

Of the above claim(s) 11 +12 ~~is~~/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-10 ~~is~~/are rejected.

☐ Claim(s) _____ is/are objected to.

☒ Claim(s) 1-12 are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Reference(s) Cited, PTO-892

☐ Notice of Informal Patent Application, PTO-152

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Other _____

Office Action Summary

1. This Office action is responsive to the amendment (Paper No. 9) filed April 30, 2003 wherein the specification was amended and claims 8 and 12 were amended.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The traverse of the restriction requirement in the remarks of the amendment has been carefully considered but is not deemed to be persuasive for the reasons of record as set forth in the restriction requirement and response to traversal of the last Office action, Paper No. 2 in combination with the following remarks.

The Examiner has reconsidered applicants' comments regarding the restriction requirement of record but does not find them persuasive in obviating the restriction requirement, nor persuasive in rejoining of the non-elected claims (11 and 12) currently being non-examined. It is clear that to examine both process, apparatus and product claims will require a divergent field of search and consideration of a multitude of embodiments for the various inventions. This would result in an undue burdensome search and examination. The original restriction requirement set forth three separate classes as the issuing classes for the method, mark and apparatus of Groups I-III. The elected invention of claims 1-10, classified in Class 430, subclass 30, has no mandatory search in the specific mark or

apparatus areas as set forth by the Examiner in the original restriction requirement. The Examiner's initial response to the traversal was adequate in addressing the original reasons for traversing the restriction requirement presented by applicants. In view of the additional comments presented after the restriction requirement was repeated and made FINAL, the Examiner is providing the additional reasons set forth above to clarify and complete the record commensurate with applicants' assertions that the record is unclear in its current state. The restriction requirement set forth in the original Office action and the previous Office action (Paper Nos. 6 and 8) is hereby repeated and made FINAL.

4. Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Kawakubo et al.

The discussion in the remarks of the amendment explaining why the scope of the protection sought is patentable over the applied prior art of record has been carefully considered but is not deemed to be persuasive for the reasons of record as set forth in paragraph 4 of the last Office action in combination with the following remarks.

The Examiner makes specific mention of column 20, line 57 - column 21, line 7, wherein a method for measuring overlay alignment utilizing an interference pattern is disclosed. This type of alignment, a so-called two beam interference method, is

also referred to as LIA methods of alignment. Since the reference is referring to alignment of overlying layers, it is inherent that the gratings are "interleaved" so that determination of alignment can be obtained through use of the LIA alignment method. If the grating patterns were not "interleaved", then achievement of alignment could not be effected since a singular pattern put down in a singular step would necessarily be aligned with itself.

5. Claims 1-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawakubo et al. in combination with one of ordinary skill in the requisite art's ability.

The discussion in the remarks of the amendment explaining why the scope of the protection sought is patentable over the applied prior art of record has been carefully considered but is not deemed to be persuasive for the reasons of record as set forth in paragraph 5 of the last Office action in combination with the following remarks.

The Examiner has considered applicants' response regarding the prima facie obvious rejection. Applicants have asserted that the Examiner's statement of one of ordinary skill in the requisite art in possession of the Kawakubo et al. teachings would have found use of all well known interference pattern generating alignment devices, and their associated property characteristics in the method of Kawakubo et al., prima

facie obvious absent objective evidence of high probative value to the contrary as lacking in motivation. The Examiner disagrees and specifically points out that in the instant application's specification, it is admitted that the apparatus performing the LIA alignments are well known in the art and this fact in combination with the teachings of Kawakubo et al. stating that any well known apparatus for LIA alignment could be utilized in their invention, renders the scope of the protection sought prima facie obvious and provides motivation to utilize any well known LIA alignments including the apparatus set forth in the instant specification, admitted as prior art.

6. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a). The practice of automatically extending the shortened statutory period an additional month upon the filing of a timely first response to a final rejection has been discontinued by the Office. See 1021 TMOG 35.

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE

PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Young, whose telephone number is (703) 308-2984. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff, can be reached on (703) 308-2464. A Fax communication that is for a non-final fax should be sent to (703) 872-9310. An after final fax should be sent to (703) 872-9311.

Any inquiry of general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

Christopher G. Young
Primary Examiner
Art Unit 1756

C. Young:cdc
May 12, 2003